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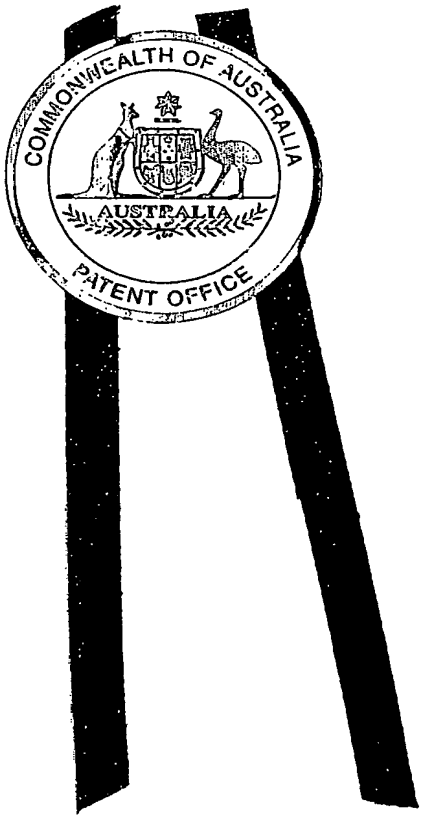

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J. Billingsley

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PROVISIONAL SPECIFICATION

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Invention Title: **Guttering**

The invention is described in the following statement:

GUTTERING

This invention relates generally to guttering for buildings and the like.

One form of currently known guttering includes a channel shaped body which is adapted to be mounted to a building by a series of support brackets. A problem associated with existing guttering is that it is a relatively time consuming task to mount the guttering to the building because of the requirement that the guttering has a proper fall enabling water in the guttering to be directed to the down pipe. This requires the setting of a string line at the desired fall angle and thereafter mounting brackets correctly so that the channel will follow the fall line.

Another problem associated with buildings is that there is often a gap between the building wall and the roof or eaves. This gap can be a problem particularly in regions prone to bush fires. In the event of a fire sparks can enter the roof cavity through the gap with disastrous consequences. Furthermore, in some cases the gap provides access into the roof cavity for rodents and other animals.

It is object of the present invention to provide a guttering assembly which alleviates one or more of the aforementioned disadvantages.

According to one aspect of the present invention there is provided a guttering assembly for use in buildings which include a roof having roof battens, the guttering assembly including a liquid collecting section and a mounting section, the mounting section including a flange member which, when the assembly is in an installed position overlies the roof battens.

The liquid collecting section and mounting section may be in the form of a unitary body or include two parts which are adapted to be connected together. Preferably, the liquid collecting section includes a channel shaped body having an open top side.

In the form of the invention where the assembly includes two parts, the mounting section may include a front flange to which the liquid collecting section can be attached and a top flange, the top flange being adapted to overlie the battens when in the installed position. Preferably, the front flange is generally at right angles to the top flange. The mounting section may be formed from a generally rectangular piece of sheet material which is folded, pressed or otherwise formed into the selected configuration. Preferably, the junction line between the flanges is slightly inclined to the side edges of the rectangular sheet. By this arrangement, when the top flange is fitted so as to overlie the roof battens the front flange will be slightly inclined with respect to the horizontal. Thus, when the gutter section is attached to the front flange it will also be slightly inclined thereby allowing for the fall required for directing liquid to the down pipe. Preferably, the front flange includes mountings for receiving the liquid collecting section. The mountings may be adapted to receive fastenings such as screws including tex screws and the like.

The liquid mounting section which as mentioned earlier is preferably channel shaped includes inner and outer sides and a base. The inner side is adapted to be secured to the front flange of the mounting section. In one form, the inner side has an upper edge which is profiled to conform to the profile of the roofing material. For example, it may be adapted to conform with a corrugated roofing sheet profile ensuring that there is no gap between the side wall of the building and the roof. This feature may form a separate aspect of the invention not necessarily provide in combination with the first aspect.

According to another embodiment, the liquid collecting section and the mounting section are formed in one piece. In this form the inner side of the channel shaped liquid collecting section includes a top flange thereon which is formed in a similar fashion to that described above.

Supports such as straps may be provided to ensure that the liquid collecting section is properly supported. Leaf guards may also be provided and preferably these leaf guards are operatively connected to the strap sections.

In another form of the invention the liquid collection section is modified so as to but suitable for use with an existing fascia. In this form of the invention the liquid collection section is formed preferably by folding from flat sheet such that the inner side wall is of different heights from one end to the other. This arrangement provides for a natural fall of the liquid collecting assembly. The liquid collecting section may be mounted to the existing fascia by providing a hook shaped mounting portion on the inner wall, preferably at the upper edge thereof. The hook shaped mounting section may be attached to the fascia by simply overlying its upper edge straps may be provided for assisting in supporting the liquid collecting section.

According to another aspect of the present invention there is provided a guttering assembly for use in buildings the assembly including a mounting section and a liquid collecting section, the mounting section includes a sheet having mounting projections thereon. The sheet is adapted to be secured to a wall of fascia of the building with the mounting projections being aligned so as correspond to the fall required in the liquid collecting section of the gutter assembly. The liquid collecting section includes a trough like channel having an internal side wall which can be mounted to the mounting projections so that in an installed position the liquid collecting section is disposed at the selected fall of gutter assembly.

In one form the mounting projections are hook like elements pressed or punched out of the mounting section. The hook-like elements are adapted to co-operate with a hook shaped edge portion on internal side wall, preferably at the upper edge thereof so that the liquid collecting section can be attached to the mounting section. Preferably, strap elements are disposed along the length of the guttering to support the liquid collecting section particularly when it contains water.

In order to enable a clearer understanding of the invention, drawings illustrating example embodiments are attached, and in those drawings:

Figure 1 is a schematic view of a guttering assembly according to a first

embodiment of the present invention;

Figure 2 is a schematic view of a second embodiment of guttering assembly according to the present invention;

Figure 3 is a modification of the guttering assembly shown in Figure 2;

Figures 4 and 5 are illustrations of straps and leaf guards for use with the guttering assembly for the present invention;

Figures 6 and 7 are side views of mounting sections according to an embodiment of the present invention;

Figure 8 are schematic views of a liquid collecting section suitable for use with the mounting sections shown in Figures 6 and 7;

Figures 9 and 10 are schematic views of a guttering assembly according to another embodiment of the invention; and

Figures 11 and 12 are schematic views of guttering assemblies according to further embodiments of the invention.

Referring to the drawings there is shown a guttering assembly generally indicated at 10 which is adapted to be fitted to the roof of the building having battens 60.

As shown in Figure 1, the guttering assembly includes a liquid collection section 12 in the form of a channel shaped structure having an inner side wall 14 and an outer wall 15 and a base 16. The assembly further includes a mounting 17 section which includes a top flange 18 with the inner side wall 14 of the channel forming the other part of the mounting section. The assembly is adapted to be formed by a folding process and the top flange 18 is folded along a line inclined to the outer side edge of the top flange thereby ensuring that

the channel shaped liquid collecting section will follow the fall line required for enabling water to pass to the down pipe.

In the embodiment of Figure 2, the mounting section 18 and liquid collecting section 12 are formed are two parts. In this embodiment the mounting section 18 includes a top flange 18 and a front flange 19. The front flange 19 includes mounting portions for receiving the liquid collection section. As shown the mounting section is folded so that the junction line between the flanges is inclined with respect to the edges of the sheet from which it is formed. The liquid collecting member is then connected to the front flange and because of the position of the mountings will adopt an inclined disposition.

In Figure 3 the upper edge 23 of the inner side wall 14 of the liquid collecting section is profiled so that it fits snugly into the profile of the roofing sheets.

Referring to Figures 6 to 8 there is shown another form of guttering assembly 40. The assembly 40 includes a mounting section 42 and a liquid collecting section 44. The mounting section 42 includes a sheet having mounting projections 46 thereon. The sheet is tapered from one end to the other and adapted to be secured to a wall or fascia of the building with the mounting projections 46 being aligned so as correspond to the fall required in the liquid collecting section of the gutter assembly. It will be appreciated that by aligning the lower edge of the sheets shown in Figures 6 and 7 with an edge of the fascia, the mounting projections will be inclined relative to that edge. That is, a line extending through the projections from one end of the sheet to the other will conform to the required fall of the liquid collecting section of the guttering assembly. The liquid collecting section 44 as shown in Figures 7 and 8 includes a trough like channel 50 having an internal side wall 51 which can be mounted to the mounting projections 46 so that in an installed position the liquid collecting section is disposed at the selected fall of gutter assembly.

In one form the mounting projections 46 are triangular shaped hook like elements pressed or punched out of the mounting section. The hook-like elements are adapted to

co-operate with a hook shaped edge portion 52 on internal side wall at the upper edge thereof so that the liquid collecting section can be attached to the mounting section. Strap elements (not shown) are disposed along the length of the guttering to support the liquid collecting section particularly when it contains water.

In the embodiment of Figures 9 and 10 the liquid collection section 62 is modified so as to but suitable for use with an existing fascia 64. In this form of the invention the liquid collection section 67 is formed preferably by folding from flat sheet such that the inner side wall 66 is of different heights from one end to the other. This arrangement provides for a natural fall of the liquid collecting assembly. The liquid collecting section may be mounted to the existing fascia 62 by providing a hook shaped mounting portion 68 on the inner wall, preferably at the upper edge thereof. The hook shaped mounting section may be attached to the fascia by simply overlying its upper edge straps may be provided for assisting in supporting the liquid collecting section.

Referring to Figure 11 there is shown another form of guttering assembly according to the present invention. In this particular form there is provided a mounting section 72 and liquid collecting section 74 two forms of which are illustrated. The mounting section 72 is in the form of a sheet which is adapted to be secured to a wall or fascia of a building by fastenings which cooperate with mounting apertures 76. The upper edge of the sheet has a spring clip section 75 thereon which is adapted to receive the coupling section 77 on the liquid collecting section 74. As shown the coupling section can be in the form of a protuberance 78 or hook shaped flange 79. The coupling section 77 is adapted to snap fit into the clip section 75.

In the embodiment of Figure 12 the mounting section 92 has a U-shaped flange 93 formed along its upper edge which is adapted to receive a hook like coupling section 95 on the liquid collecting section 94.

Finally, it is to be understood that the inventive concept in any of its aspects can be incorporated in many different constructions so that the generality of the preceding

description is not to be superseded by the particularity of the attached drawings. Various alterations, modifications and/or additions may be incorporated into the various constructions and arrangements of parts without departing from the spirit or ambit of the invention.

Dated this 6th day of August, 2003

BRIAN JOHN HIGGINS

By Its Patent Attorneys

DAVIES COLLISON CAVE

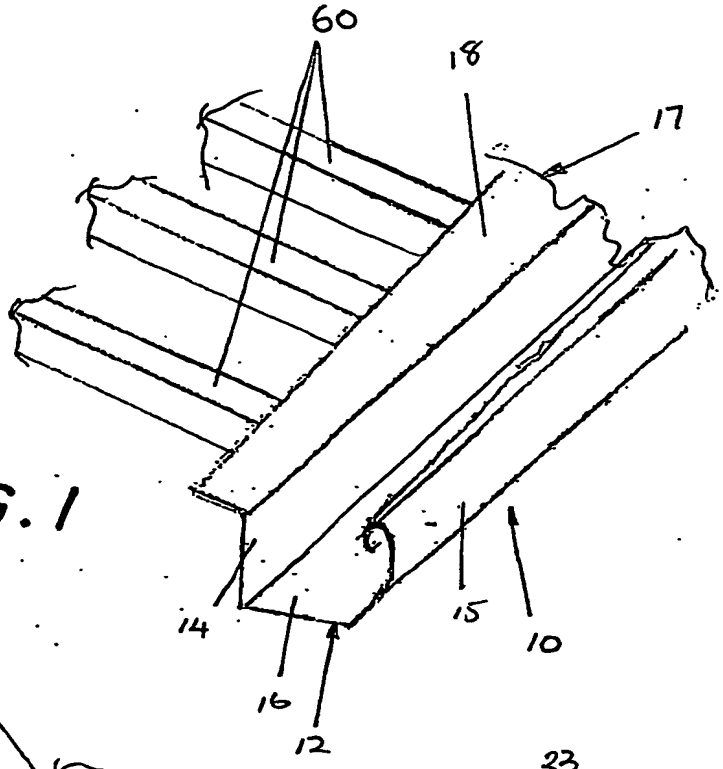


FIG. 1

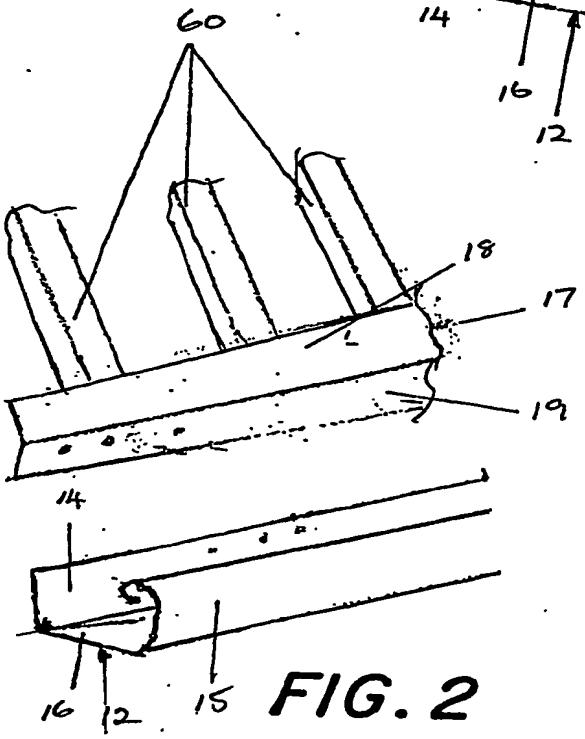


FIG. 2

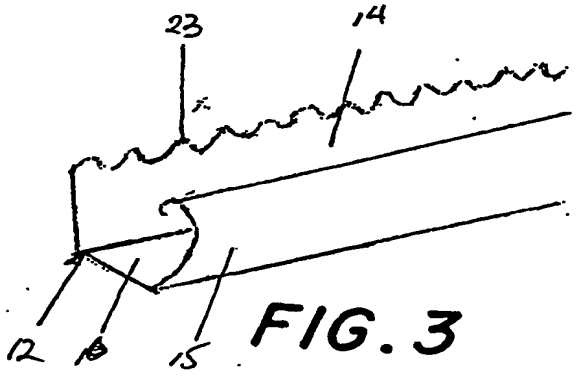


FIG. 3

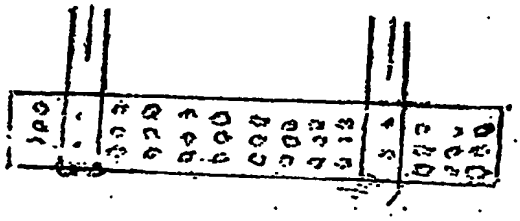


FIG. 4

FIG. 5

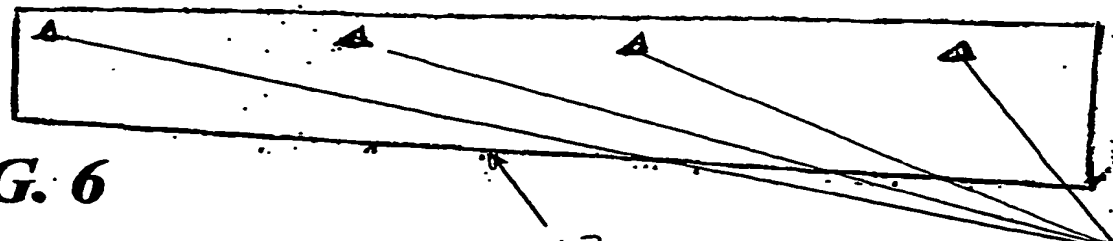


FIG. 6

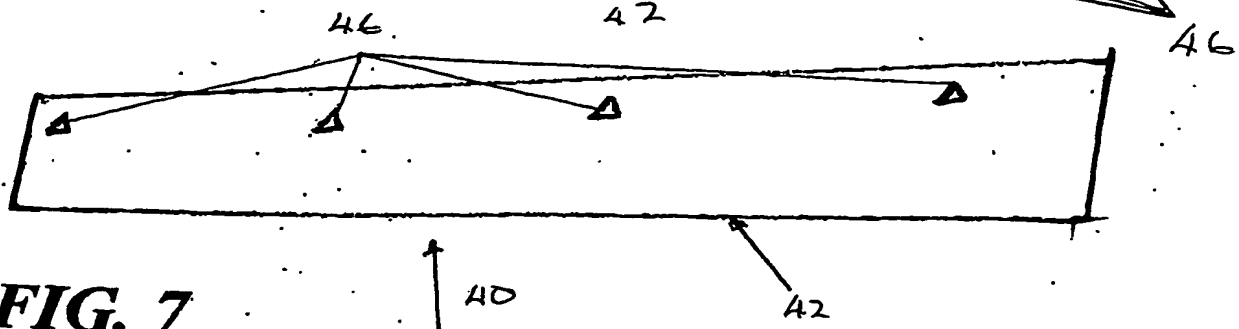


FIG. 7

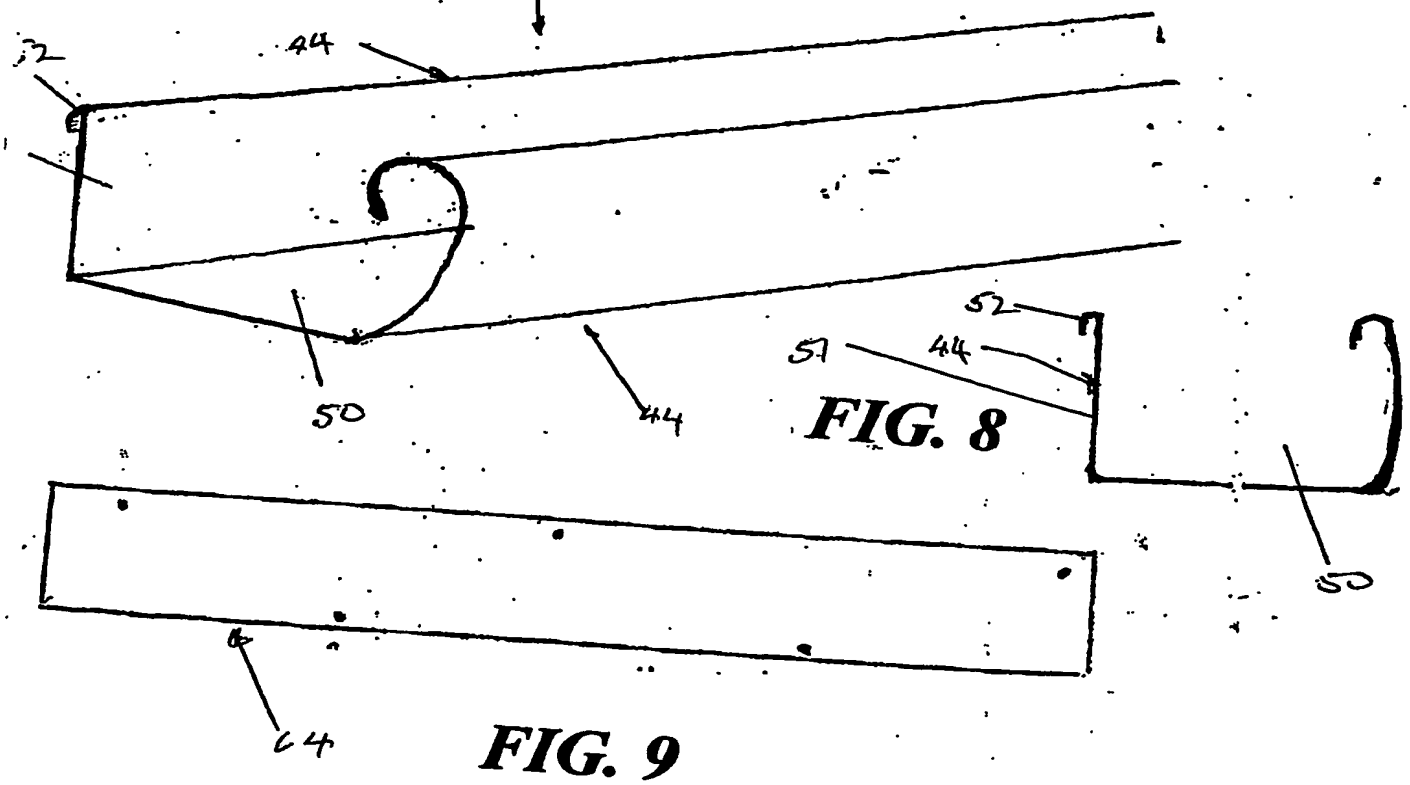


FIG. 8

FIG. 9

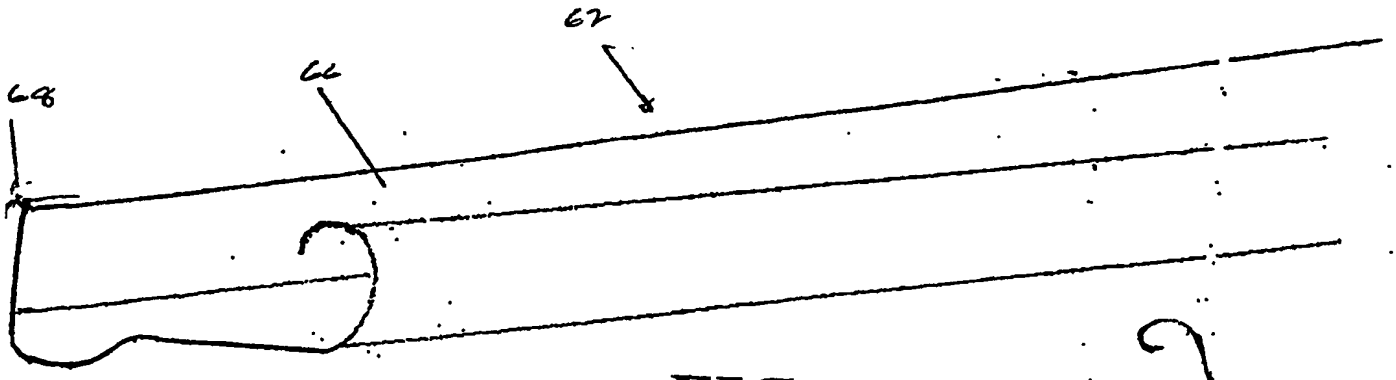


FIG. 10

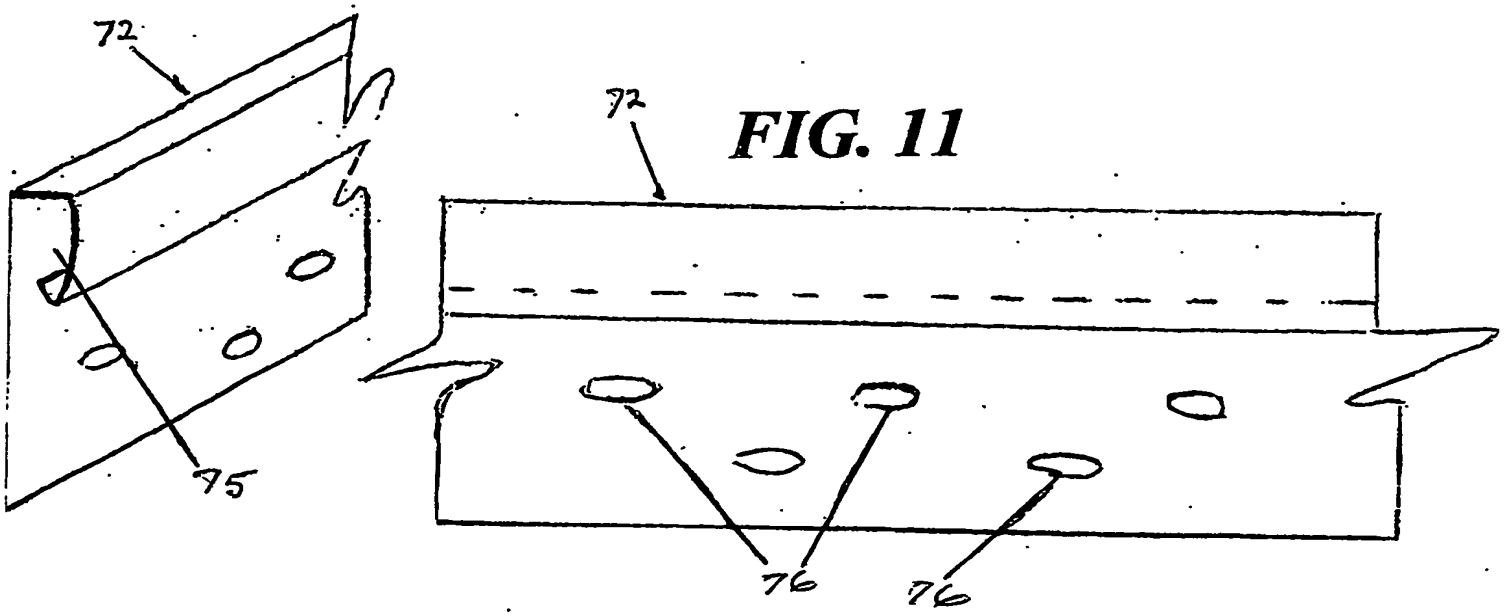
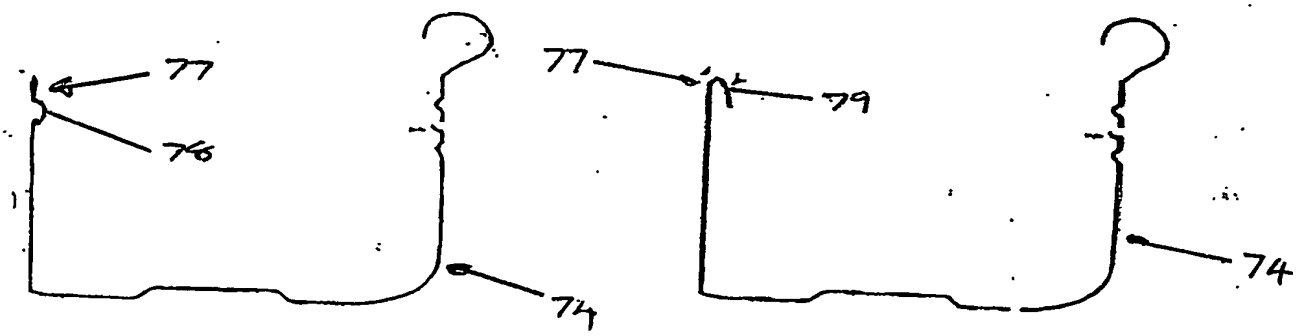


FIG. 11



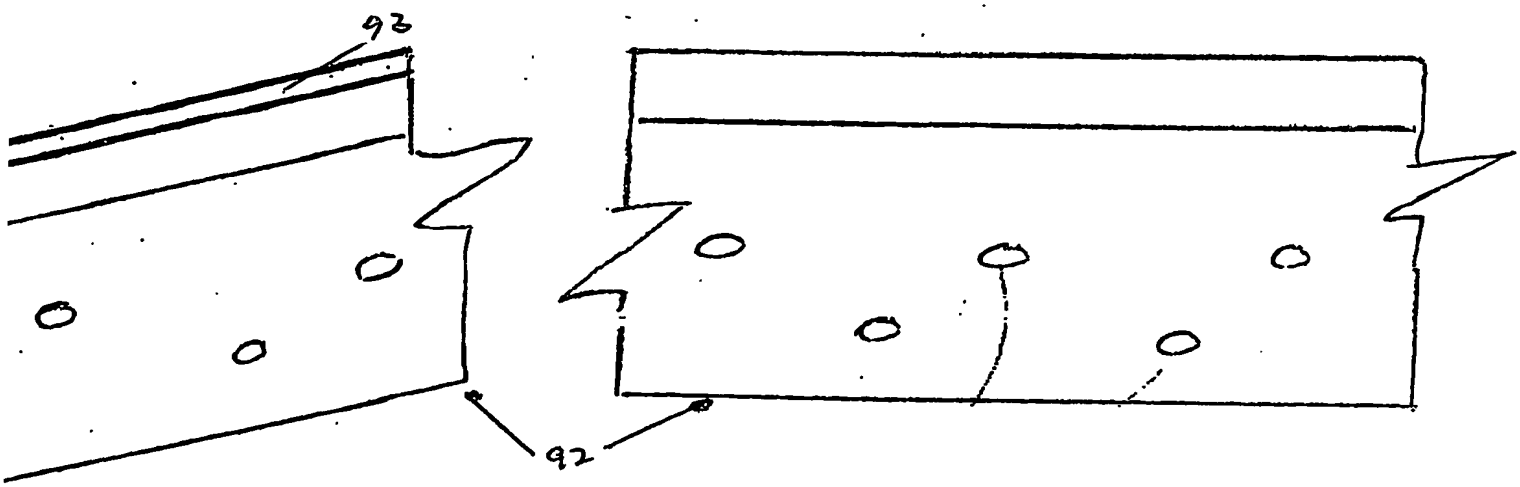
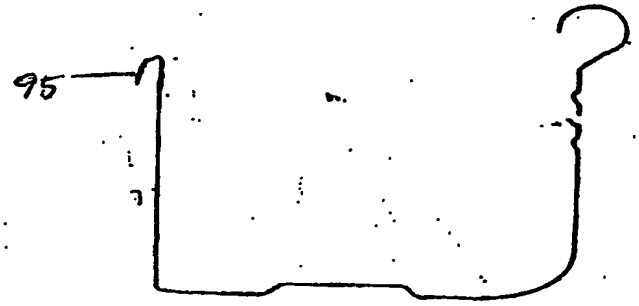


FIG. 12



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